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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis

13715 Rider Trail North

Earth City, MO 63045

Tel: (314)298-8566

TestAmerica Job ID: 160-5692-1

Client Project/Site: Glen Isle, Radiological Analyses

For:

Posillico Dev Company at Harbor Isle LLC

1750 New Highway

Farmingdale, New York 11735

Attn: Ellis Koch

Rhonda Ridenhower

Authorized for release by:

3/14/2014 4:00:05 PM

Rhonda Ridenhower, Manager of Project Management

(314)298-8566

rhonda.ridenhower@testamericainc.com

LINKS

Review your project
results through

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The
Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Posillico Dev Company at Harbor Isle LLC
Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Job ID: 160-5692-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: Posillico Dev Company at Harbor Isle LLC

Project: Glen Isle, Radiological Analyses

Report Number: 160-5692-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 02/25/2014; the samples arrived in good condition, properly preserved. The temperature of the coolers at receipt was 22.0 C.

RADIUM 226 (0 DAY INGROWTH)-Water

Sample FB027 (160-5692-5) was analyzed for radium 226 (0 day ingrowth) in accordance with EPA 903. The samples were prepared on 02/27/2014 and analyzed on 02/28/2014.

Radium 226 was analyzed without ingrowth, as such; the results may be biased high.

No other difficulties were encountered during the Radium 226 analysis.

All other quality control parameters were within the acceptance limits.

RADIUM-228 (GFPC)-Water

Case Narrative

Client: Posillico Dev Company at Harbor Isle LLC
Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Job ID: 160-5692-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Sample FB027 (160-5692-5) was analyzed for Radium-228 (GFPC) in accordance with EPA 904. The samples were prepared on 02/27/2014 and analyzed on 03/03/2014.

No difficulties were encountered during the Radium-228 analysis.

All quality control parameters were within the acceptance limits.

ISOTOPIC THORIUM (ALPHA SPECTROMETRY)-Solids

Samples LT-XC-020-6-8 (160-5692-1), CC-C-042-6-8 (160-5692-2), CC-C-043-10-12 (160-5692-3), CC-C-044-6-8 (160-5692-4), CC-C-045-6-8 (160-5692-6), LT-C-048-2-4 (160-5692-7), CC-C-046-6-8 (160-5692-8) and LT-C-049-2-4 (160-5692-9) were analyzed for Isotopic Thorium (Alpha Spectrometry) in accordance with DOE A01R_Th. The samples were dried on 02/26/2014, prepared on 03/03/2014 and analyzed on 03/06/2014 and 03/09/2014.

No difficulties were encountered during the Isotopic Thorium analysis.

All quality control parameters were within the acceptance limits.

ISOTOPIC THORIUM (ALPHA SPECTROMETRY)-Waters

Sample FB027 (160-5692-5) was analyzed for Isotopic Thorium (Alpha Spectrometry) in accordance with DOE. The samples were prepared on 03/03/2014 and analyzed on 03/05/2014.

No difficulties were encountered during the Isotopic Thorium analysis.

All quality control parameters were within the acceptance limits.

ISOTOPIC URANIUM (ALPHA SPECTROMETRY)-Solids

Samples LT-XC-020-6-8 (160-5692-1), CC-C-042-6-8 (160-5692-2), CC-C-043-10-12 (160-5692-3), CC-C-044-6-8 (160-5692-4), CC-C-045-6-8 (160-5692-6), LT-C-048-2-4 (160-5692-7), CC-C-046-6-8 (160-5692-8) and LT-C-049-2-4 (160-5692-9) were analyzed for Isotopic Uranium (Alpha Spectrometry) in accordance with DOE. The samples were dried on 02/26/2014, prepared on 03/07/2014 and analyzed on 03/12/2014.

No difficulties were encountered during the Isotopic Uranium analysis.

All quality control parameters were within the acceptance limits.

ISOTOPIC URANIUM (ALPHA SPECTROMETRY)-Waters

Sample FB027 (160-5692-5) was analyzed for Isotopic Uranium (Alpha Spectrometry) in accordance with DOE. The samples were prepared on 03/03/2014 and analyzed on 03/05/2014.

No difficulties were encountered during the Isotopic Uranium analysis.

All quality control parameters were within the acceptance limits.

CESIUM-137 & OTHER GAMMA EMITTERS (GS)

Sample FB027 (160-5692-5) was analyzed for Cesium-137 & Other Gamma Emitters (GS) in accordance with DOE. The samples were prepared on 02/27/2014 and analyzed on 02/28/2014.

The reporting limit was not met despite the activity being below the reporting limit. Protactinium-234 and protactinium-231 have an elevated MDC due to low abundance. The activity is not supported by thorium-234 or other members of the decay chain. The data is reported with the MDC achieved. (160-5691-1 DU), (MB 160-107877/1-A), FB026 (160-5691-1), FB027 (160-5692-5)

No other difficulties were encountered during the gamma spec analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: Posillico Dev Company at Harbor Isle LLC
Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Job ID: 160-5692-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

RADIUM 226 (NO INGROWTH)

Samples LT-XC-020-6-8 (160-5692-1), CC-C-042-6-8 (160-5692-2), CC-C-043-10-12 (160-5692-3), CC-C-044-6-8 (160-5692-4), CC-C-045-6-8 (160-5692-6), LT-C-048-2-4 (160-5692-7), CC-C-046-6-8 (160-5692-8) and LT-C-049-2-4 (160-5692-9) were analyzed for Radium 226 (No ingrowth) in accordance with GA-01-R. The samples were dried on 02/26/2014, prepared on 02/28/2014 and analyzed on 03/04/2014 and 03/05/2014.

The RER was outside of the acceptance limits of 1 for protactinium-231. Both the sample and duplicate activity were less than the MDC. (160-5692-1 DU), (LCS 160-107955/2-A), (MB 160-107955/1-A), CC-C-042-6-8 (160-5692-2), CC-C-043-10-12 (160-5692-3), CC-C-044-6-8 (160-5692-4), CC-C-045-6-8 (160-5692-6), CC-C-046-6-8 (160-5692-8), LT-C-048-2-4 (160-5692-7), LT-C-049-2-4 (160-5692-9), LT-XC-020-6-8 (160-5692-1)

The reporting limits for bismuth-212 and/or lead-210 analyzed by gamma spectroscopy were not met due to activity in the samples. The data is reported with the MDC achieved. (160-5692-1 DU), CC-C-042-6-8 (160-5692-2), CC-C-043-10-12 (160-5692-3), CC-C-044-6-8 (160-5692-4), CC-C-045-6-8 (160-5692-6), CC-C-046-6-8 (160-5692-8), LT-C-048-2-4 (160-5692-7), LT-C-049-2-4 (160-5692-9), LT-XC-020-6-8 (160-5692-1)

Ra-226 by gamma spectroscopy is typically determined by inference from daughters (e.g. Bi-214) after sealing the sample in an appropriate counting geometry/container and waiting 21 days to allow the Ra-226 decay chain through Rn-222 to reach secular equilibrium. Such an approach is considered to be the most reliable and representative means for establishing the true Ra-226 concentration in the sample. The method requested by the client to report Ra-226, using its own 186 keV gamma-ray emission, is subject to interference and potential bias due to the 185.7 keV U-235 gamma ray. Experience also indicates gamma spectroscopy software does not consistently assign accurate peak areas to Ra-226 (186 keV), with the problem compounded by slight drift of the instrumentation. The laboratory considers Ra-226 reported based upon the 186 keV gamma-ray emission to be best used by the client in a qualitative fashion.

No other difficulties were encountered during the Gamma spec analysis.

All other quality control parameters were within the acceptance limits.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Name (for report and invoice)

S. J. S. Koch

Company

RXR - Gen Isle Partners, LLC

Address

625 - RXR Plaza

City Uniondale State NY

Phone

Fax

CHAIN OF CUSTODY / ANALYSIS

480-55087 Chain of Custody

Page 1 of 4

Samplers Name (Printed) Amanda Raciney from RXR
P.O. # Glen Isle Waterfront Redevelopment

State (Location of site): NJ: NY: Other:

Regulatory Program:

ANALYSIS REQUESTED (ENTER % BELOW TO INDICATE REQUEST)

LAB USE ONLY

Project No:

Job No:

Analysis Turnaround Time

Standard

Rush Charges Authorized For:

2 Week

1 Week

Other

Sample Numbers

Sample Identification Date Time Matrix No. of Cont.

LT-XC-020-0-2	2/20/14	1130	Soil	2
LT-XC-020-4-6	2/20/14	1135	Soil	2
LT-XC-020-6-8	2/20/14	1140	Soil	3
CC-C-C42-0-2	2/20/14	1035	Soil	X
CC-C-C42-2-4	2/20/14	1040	Soil	X
CC-C-C42-6-8	2/20/14	1043	Soil	1
CC-C-C42-8-10	2/20/14	1045	Soil	X
CC-C-C43-0-2	2/20/14	1115	Soil	X
CC-C-C43-2-4	2/20/14	1120	Soil	X
CC-C-C43-6-8	2/20/14	1235	Soil	X
Preservation Used:	1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:	X
6 = Other	7 = Other		Water:	X

Special Instructions

Relinquished by <u>A. Raciney</u>	Company <u>DNV</u>	Date / Time <u>2/19/14 12:30</u>	Received by <u>J. Jones</u>	Company <u>J. Jones</u>
Relinquished by <u>J. Jones</u>	Company <u>J. Jones</u>	Date / Time <u>2/25/14 13:30</u>	Received by <u>J. Jones</u>	Company <u>J. Jones</u>
Relinquished by <u>J. Jones</u>	Company <u>J. Jones</u>	Date / Time <u>2/25/14</u>	Received by <u>J. Jones</u>	Company <u>J. Jones</u>
Relinquished by <u></u>	Company <u></u>	Date / Time <u></u>	Received by <u></u>	Company <u></u>
Relinquished by <u></u>	Company <u></u>	Date / Time <u></u>	Received by <u></u>	Company <u></u>

Water Metals Filtered (Yes/No)?

Water Metals Filtered (Yes/No)?	Company <u>J. Jones</u>
	Company <u>J. Jones</u>

TAL-0016 (0408)

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

Chain of Custody Record

TestAmerica

Temperature on Receipt _____

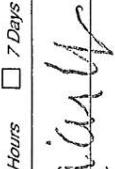
Drinking Water? Yes No

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	EllisKoch - R&R-Chemical Products Direct Enviro			Project Manager	Date	2/20/14	Chain of Custody Number	2666150
Address	1625 R&R Plaza			Telephone Number (Area Code)/Fax Number	Date/Number	2/20/14	Page	2 of 3
City	Waukesha	State	WI	Zip Code	115370	Site Contact	Lab Contact	Special Instructions/ Conditions of Receipt
Project Name and Location (State)			A. Russell & CO			(Attach list if more space is needed)		
Contract/Purchase Order/Quote No.								

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix	Containers & Representatives		
				Uphol	Sed	Aquac
CC-C-043-10-12	2/20/14	1130	Air	X	X	X
DUP026	2/20/14	XXV		X	X	X
CC-C-044-0-2	2/20/14	1155		X	X	X
CC-C-044-4-6	2/20/14	1200		X	X	X
CC-C-044-10-8	2/20/14	1203		X	I	X
CC-C-044-8-10	2/20/14	1205		X	X	X
FRO27	2/20/14	1230		X	I	X
CC-C-045-0-2	2/20/14	1230		X	X	X
CC-C-045-4-6	2/20/14	1235		X	X	X
CC-C-045-6-8	2/20/14	1237		X	I	X
CC-C-045-8-10	2/20/14	1240		X	X	X
CT-C-048-0-2	2/20/14	1245		X	2	X
Sample Disposal				(A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab

Turn Around Time Required	QC Requirements (Specify)
<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours
<input type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days
<input type="checkbox"/> 21 Days	<input type="checkbox"/> Other
1. Relinquished By	1. Received By
	
2. Relinquished By	2. Received By
	
3. Relinquished By	3. Received By
Comments	

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

2 3942, 63

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Chain of Custody Record

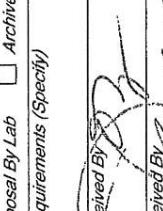
TestAmerica

Temperature on Receipt _____

Drinking Water? Yes No

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Ellis Koch - R&R Consulting Partners			Project Manager	Derek Ershack			Date	2/20/14	Chain of Custody Number	270493
Address	625 RNR Plaza			Telephone Number (Area Code)/Fax Number	1031-589-1033			Lab Number		Page	3 of 4
City	Uniondale	State	NY	Zip Code	11553	Site Contact	A. G. Canfield C.	Special Instructions/ Conditions of Receipt			
Project Name and Location (State)				Contract/Purchase Order/Quote No.							
Giant Eagle Water Treatment											
Matrix				Containers & Preservatives				Sample I.D. No. and Description (Containers for each sample may be combined on one line)			
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	%	Uptiles	Preserves	HNO3	HOAc	NaOH	ZnAc	HCIO	SnCl4
LT-C-048-2-4	2/20/14	1320		X	X	3	X	X	X	X	
LT-C-048-6-8	2/20/14	1325		X	X	2	X	X	X		
CC-C-046-0-2	2/20/14	1345		X	X		X	X	X		
CC-C-046-4-6	2/20/14	1350		X	X		X	X	X		
CC-C-046-6-8	2/20/14	1405		X	X		X	X	X		
CC-C-046-8-10	2/20/14	1400		X	X		X	X	X		
CC-C-047-0-2	2/20/14	1420		X	X		X	X	X		
CC-C-047-2-4	2/20/14	1425		X	X		X	X	X		
CC-C-047-8-10	2/20/14	1430		X	X		X	X	X		
LT-C-049-0-2	2/20/14	1450		X	X		X	X	X		
LT-C-049-2-4	2/20/14	1455		X	X		X	X	X		
LT-C-049-8-10	2/20/14	1500		X	X		X	X	X		
Possible Hazard Identification				Sample Disposal				(A fee may be assessed if samples are retained)			
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison A	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Land	<input type="checkbox"/> Activate For	<input type="checkbox"/> Months	longer than 1 month)		
Turn Around Time Required				AC Requirements (Specify)							
<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days	<input type="checkbox"/> 21 Days	<input type="checkbox"/> Other _____						
1. Relinquished By				Date 2/21/14 Time 13:30				1. Received By 			
2. Relinquished By				Date 2/21/14 Time 13:30				2. Received By 			
3. Relinquished By				Date 2/25/14 Time 0930				3. Received By 			
Comments _____											

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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1 2 3 4 5 6 7 8 9 10 11 12

Chain of Custody Record

TestAmerica

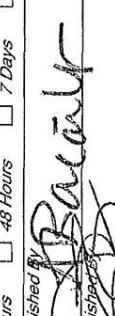
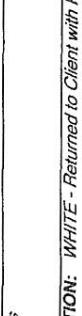
Temperature on Receipt _____

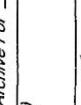
Drinking Water? Yes No

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client Address City Project Name and Location (State) Contract/Purchase Order/Quote No.	Project Manager Telephone Number (Area Code)/Fax Number Site Contact State Zip Code Carrier/Mailbox Number	Date Lab Number Analysis (Attach list if sample is needed)	Chain of Custody Number Page <u>4</u> of <u>4</u>																								
Ellis Koch-Ryk Laboratories, Business LLC 1025 RYK Drive Wauconda IL 60088	Dee K. Ernst 031-589-40353 A.R. Contracts Camer/Mailbox Number	2/21/14 155 	270494																								
<table border="1"> <thead> <tr> <th>Containers & Preservatives</th> <th>Matrix</th> </tr> </thead> <tbody> <tr> <td>H2SO4</td> <td>Air</td> </tr> <tr> <td>HNO3</td> <td>Soil</td> </tr> <tr> <td>Upholes</td> <td>Sed.</td> </tr> <tr> <td>Aggregates</td> <td>Soil</td> </tr> <tr> <td>HC1</td> <td></td> </tr> <tr> <td>NaOH</td> <td></td> </tr> <tr> <td>ZnAc</td> <td></td> </tr> <tr> <td>NaOH</td> <td></td> </tr> <tr> <td>AlCl3</td> <td></td> </tr> <tr> <td>Sample I.D. No. and Description (Containers for each sample may be combined on one line)</td> <td>Date Time</td> </tr> <tr> <td>C6-C-051-8-10</td> <td>2/21/14 155</td> </tr> </tbody> </table>				Containers & Preservatives	Matrix	H2SO4	Air	HNO3	Soil	Upholes	Sed.	Aggregates	Soil	HC1		NaOH		ZnAc		NaOH		AlCl3		Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date Time	C6-C-051-8-10	2/21/14 155
Containers & Preservatives	Matrix																										
H2SO4	Air																										
HNO3	Soil																										
Upholes	Sed.																										
Aggregates	Soil																										
HC1																											
NaOH																											
ZnAc																											
NaOH																											
AlCl3																											
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date Time																										
C6-C-051-8-10	2/21/14 155																										

Possible Hazard Identification	Sample Disposal		
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B
<input type="checkbox"/> Turn Around Time Required	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab
<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days
<input type="checkbox"/> Relinquished by  Brian	<input type="checkbox"/> Date <u>2/21/14</u>	<input type="checkbox"/> Time <u>12:30</u>	<input type="checkbox"/> 21 Days
<input type="checkbox"/> Relinquished by  Brian	<input type="checkbox"/> Date <u>2/21/14</u>	<input type="checkbox"/> Time <u>13:32</u>	<input type="checkbox"/> Other
<input type="checkbox"/> Relinquished by  Brian	<input type="checkbox"/> Date <u>2/25/14</u>	<input type="checkbox"/> Time <u>0930</u>	

Comments	1. Received By  Brian	Date <u>2/21/14</u>	Time <u>12:30</u>
Comments	2. Received By  Brian	Date <u>2/21/14</u>	Time <u>13:32</u>
Comments	3. Received By  Brian	Date <u>2/25/14</u>	Time <u>0930</u>

DISTRIBUTION: White - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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Login Sample Receipt Checklist

Client: Posillico Dev Company at Harbor Isle LLC

Job Number: 160-5692-1

Login Number: 5692

List Source: TestAmerica St. Louis

List Number: 1

Creator: Clarke, Jill C

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: Posillico Dev Company at Harbor Isle LLC
Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
F	Duplicate RPD exceeds the control limit
G	The Sample MDC is greater than the requested RL.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

%	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Method Summary

Client: Posillico Dev Company at Harbor Isle LLC
Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
A-01-R	Isotopic Thorium (Alpha Spectrometry)	DOE	TAL SL
A-01-R	Isotopic Uranium (Alpha Spectrometry)	DOE	TAL SL
GA-01-R	Radium-226 & Other Gamma Emitters (GS)	DOE	TAL SL
GA-01-R	Cesium-137 & Other Gamma Emitters (GS)	DOE	TAL SL

Protocol References:

DOE = U.S. Department of Energy

EPA = US Environmental Protection Agency

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Posillico Dev Company at Harbor Isle LLC
Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-5692-1	LT-XC-020-6-8	Solid	02/20/14 11:40	02/25/14 09:30
160-5692-2	CC-C-042-6-8	Solid	02/20/14 10:43	02/25/14 09:30
160-5692-3	CC-C-043-10-12	Solid	02/20/14 11:30	02/25/14 09:30
160-5692-4	CC-C-044-6-8	Solid	02/20/14 12:03	02/25/14 09:30
160-5692-5	FB027	Water	02/20/14 12:30	02/25/14 09:30
160-5692-6	CC-C-045-6-8	Solid	02/20/14 12:37	02/25/14 09:30
160-5692-7	LT-C-048-2-4	Solid	02/20/14 13:20	02/25/14 09:30
160-5692-8	CC-C-046-6-8	Solid	02/20/14 14:05	02/25/14 09:30
160-5692-9	LT-C-049-2-4	Solid	02/20/14 14:55	02/25/14 09:30

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TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: LT-XC-020-6-8

Lab Sample ID: 160-5692-1

Matrix: Solid

Date Collected: 02/20/14 11:40

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.414		0.145	0.149	1.00	0.103	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-230	0.447		0.146	0.151	1.00	0.0714	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-232	0.349		0.129	0.132	1.00	0.0662	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	79.8		30 - 110					03/03/14 10:32	03/06/14 16:45	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.692		0.230	0.237	1.00	0.0981	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	0.0852	U	0.0948	0.0951	1.00	0.122	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.416		0.181	0.185	1.00	0.122	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	48.4		30 - 110					03/07/14 13:26	03/12/14 18:01	1

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Actinium 228	0.557		0.0237	0.0615	0.100	0.0242	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Bismuth-212	0.648		0.0979	0.119	0.100	0.0850	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Bismuth-214	0.379		0.0161	0.0426	0.100	0.0125	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Lead-210	0.434		0.105	0.116	0.100	0.138	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Lead-212	0.595		0.0124	0.0780	0.100	0.0101	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Lead-214	0.412		0.0153	0.0455	0.100	0.0138	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Potassium-40	11.5		0.209	1.20	2.50	0.0712	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Protactinium-231	-0.260	U	0.123	0.127	1.00	0.199	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Radium-226	0.895		0.137	0.208	1.00	0.151	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Radium-228	0.557		0.0237	0.0615	1.00	0.0242	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Thorium-234	0.391		0.0558	0.0692	1.00	0.146	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Thallium-208	0.174		0.00992	0.0206	0.100	0.00777	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Uranium-235	0.0486		0.0276	0.0281	1.00	0.0394	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Uranium-238	0.391		0.0558	0.0692	1.00	0.146	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Protactinium-234m	1.69		0.697	0.717	10.0	0.706	pCi/g	02/28/14 09:56	03/04/14 03:14	1

Client Sample ID: CC-C-042-6-8

Lab Sample ID: 160-5692-2

Matrix: Solid

Date Collected: 02/20/14 10:43

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.258		0.117	0.119	1.00	0.107	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-230	0.292		0.119	0.121	1.00	0.0806	pCi/g	03/03/14 10:32	03/06/14 16:45	1

TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: CC-C-042-6-8

Lab Sample ID: 160-5692-2

Date Collected: 02/20/14 10:43

Matrix: Solid

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry) (Continued)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Thorium-232	0.206		0.100	0.102	1.00	0.0802	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	85.2		30 - 110					03/03/14 10:32	03/06/14 16:45	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Uranium-233/234	0.233		0.102	0.104	1.00	0.0767	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	0.00807	U	0.0267	0.0267	1.00	0.0671	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.0653	U	0.0597	0.0600	1.00	0.0793	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	90.5		30 - 110					03/07/14 13:26	03/12/14 18:01	1

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Actinium 228	0.253		0.0152	0.0300	0.100	0.0155	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Bismuth-212	0.260		0.0405	0.0486	0.100	0.0534	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Bismuth-214	0.195		0.0130	0.0241	0.100	0.0104	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Lead-210	0.674		0.103	0.130	0.100	0.123	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Lead-212	0.244		0.00859	0.0327	0.100	0.00900	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Lead-214	0.203		0.0101	0.0234	0.100	0.0101	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Potassium-40	5.59		0.148	0.591	2.50	0.0627	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Protactinium-231	-0.0738	U	0.0834	0.0838	1.00	0.137	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Radium-226	0.546		0.100	0.138	1.00	0.109	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Radium-228	0.253		0.0152	0.0300	1.00	0.0155	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Thorium-234	0.191		0.0888	0.0911	1.00	0.116	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Thallium-208	0.0819		0.00643	0.0107	0.100	0.00523	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Uranium-235	0.0312		0.0179	0.0182	1.00	0.0310	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Uranium-238	0.191		0.0888	0.0911	1.00	0.116	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Protactinium-234m	0.815		0.550	0.556	10.0	0.561	pCi/g	02/28/14 09:56	03/04/14 03:15	1

Client Sample ID: CC-C-043-10-12

Lab Sample ID: 160-5692-3

Date Collected: 02/20/14 11:30

Matrix: Solid

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Thorium-228	0.353		0.135	0.138	1.00	0.108	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-230	0.315		0.122	0.124	1.00	0.0652	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-232	0.347		0.127	0.130	1.00	0.0620	pCi/g	03/03/14 10:32	03/06/14 16:45	1

TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: CC-C-043-10-12

Lab Sample ID: 160-5692-3

Matrix: Solid

Date Collected: 02/20/14 11:30

Date Received: 02/25/14 09:30

Tracer	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Thorium-229	84.0		30 - 110	03/03/14 10:32	03/06/14 16:45	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.597		0.168	0.175	1.00	0.0841	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	-0.00265	U	0.00531	0.00531	1.00	0.0645	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.516		0.154	0.160	1.00	0.0646	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	81.6		30 - 110					03/07/14 13:26	03/12/14 18:01	1

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Actinium 228	0.440		0.0235	0.0507	0.100	0.0235	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Bismuth-212	0.434		0.0698	0.0830	0.100	0.0700	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Bismuth-214	0.327		0.0164	0.0378	0.100	0.0126	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Lead-210	0.306		0.0940	0.101	0.100	0.128	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Lead-212	0.470		0.0120	0.0620	0.100	0.00966	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Lead-214	0.361		0.0149	0.0403	0.100	0.0127	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Potassium-40	6.72		0.185	0.712	2.50	0.0634	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Protactinium-231	-0.202	U	0.117	0.119	1.00	0.190	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Radium-226	1.00		0.105	0.204	1.00	0.119	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Radium-228	0.440		0.0235	0.0507	1.00	0.0235	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Thorium-234	0.547		0.107	0.121	1.00	0.141	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Thallium-208	0.152		0.00882	0.0181	0.100	0.00649	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Uranium-235	0.0267	U	0.0229	0.0230	1.00	0.0333	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Uranium-238	0.547		0.107	0.121	1.00	0.141	pCi/g	02/28/14 09:56	03/04/14 03:14	1
Protactinium-234m	1.60		0.843	0.858	10.0	0.802	pCi/g	02/28/14 09:56	03/04/14 03:14	1

Client Sample ID: CC-C-044-6-8

Lab Sample ID: 160-5692-4

Matrix: Solid

Date Collected: 02/20/14 12:03

Date Received: 02/25/14 09:30

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.0943	U	0.0802	0.0806	1.00	0.109	pCi/g	03/03/14 10:32	03/09/14 23:15	1
Thorium-230	0.210		0.100	0.102	1.00	0.0537	pCi/g	03/03/14 10:32	03/09/14 23:15	1
Thorium-232	0.106		0.0705	0.0710	1.00	0.0352	pCi/g	03/03/14 10:32	03/09/14 23:15	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	75.9		30 - 110					03/03/14 10:32	03/09/14 23:15	1

TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: CC-C-044-6-8

Lab Sample ID: 160-5692-4

Date Collected: 02/20/14 12:03

Matrix: Solid

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Uranium-233/234	0.357		0.128	0.132	1.00	0.0721	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	0.000866	U	0.0301	0.0301	1.00	0.0897	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.354		0.128	0.132	1.00	0.0756	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	77.8		30 - 110					03/07/14 13:26	03/12/14 18:01	1

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Actinium 228	0.157		0.0165	0.0230	0.100	0.0158	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Bismuth-212	0.190		0.0692	0.0719	0.100	0.0647	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Bismuth-214	0.136		0.0149	0.0205	0.100	0.0125	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Lead-210	0.165		0.0927	0.0947	0.100	0.119	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Lead-212	0.143		0.00813	0.0202	0.100	0.00913	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Lead-214	0.141		0.0144	0.0205	0.100	0.0119	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Potassium-40	4.64		0.169	0.504	2.50	0.0703	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Protactinium-231	-0.0768	U	0.0984	0.0987	1.00	0.162	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Radium-226	0.409		0.108	0.130	1.00	0.123	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Radium-228	0.157		0.0165	0.0230	1.00	0.0158	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Thorium-234	0.201		0.0454	0.0501	1.00	0.118	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Thallium-208	0.0507		0.00660	0.00844	0.100	0.00612	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Uranium-235	0.0247		0.0152	0.0154	1.00	0.0236	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Uranium-238	0.201		0.0454	0.0501	1.00	0.118	pCi/g	02/28/14 09:56	03/04/14 03:15	1
Protactinium-234m	0.769	U	0.508	0.514	10.0	0.840	pCi/g	02/28/14 09:56	03/04/14 03:15	1

Client Sample ID: FB027

Lab Sample ID: 160-5692-5

Date Collected: 02/20/14 12:30

Matrix: Water

Date Received: 02/25/14 09:30

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.0255	U	0.0894	0.0894	1.00	0.202	pCi/L	02/27/14 12:46	02/28/14 14:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		40 - 110					02/27/14 12:46	02/28/14 14:25	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.102	U	0.193	0.194	1.00	0.366	pCi/L	02/27/14 12:41	03/03/14 11:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/27/14 12:41	03/03/14 11:54	1
Y Carrier	88.0		40 - 110					02/27/14 12:41	03/03/14 11:54	1

TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: FB027

Lab Sample ID: 160-5692-5

Date Collected: 02/20/14 12:30

Matrix: Water

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Thorium-228	-0.0512	U	0.125	0.125	1.00	0.323	pCi/L	03/03/14 10:13	03/05/14 19:01	1
Thorium-230	0.106	U	0.152	0.152	1.00	0.258	pCi/L	03/03/14 10:13	03/05/14 19:01	1
Thorium-232	-0.0180	U	0.135	0.135	1.00	0.317	pCi/L	03/03/14 10:13	03/05/14 19:01	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	68.1		30 - 110					03/03/14 10:13	03/05/14 19:01	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Uranium-233/234	0.117		0.0986	0.0991	1.00	0.0914	pCi/L	03/03/14 10:13	03/05/14 15:25	1
Uranium-235/236	-0.00937	U	0.0132	0.0133	1.00	0.130	pCi/L	03/03/14 10:13	03/05/14 15:25	1
Uranium-238	-0.0188	U	0.0168	0.0169	1.00	0.130	pCi/L	03/03/14 10:13	03/05/14 15:25	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	92.3		30 - 110					03/03/14 10:13	03/05/14 15:25	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Actinium-228	7.20	U	6.04	6.08	50.0	12.9	pCi/L	02/27/14 14:19	02/28/14 03:27	1
Cesium-137	-0.340	U	2.36	2.36	20.0	4.07	pCi/L	02/27/14 14:19	02/28/14 03:27	1
Bismuth-212	1.93	U	27.7	27.7	50.0	48.0	pCi/L	02/27/14 14:19	02/28/14 03:27	1
Bismuth-214	3.86	U	8.20	8.21	50.0	9.58	pCi/L	02/27/14 14:19	02/28/14 03:27	1
Lead-212	0.274	U	4.20	4.20	50.0	6.79	pCi/L	02/27/14 14:19	02/28/14 03:27	1
Lead-214	3.67	U	6.75	6.76	50.0	9.43	pCi/L	02/27/14 14:19	02/28/14 03:27	1
Potassium-40	-41.1	U	84.2	84.3	75.0	61.3	pCi/L	02/27/14 14:19	02/28/14 03:27	1
Protactinium-234m	-220	UG	595	595	75.0	620	pCi/L	02/27/14 14:19	02/28/14 03:27	1
Protactinium-231	-24.5	UG	64.8	64.9	75.0	109	pCi/L	02/27/14 14:19	02/28/14 03:27	1

Client Sample ID: CC-C-045-6-8

Lab Sample ID: 160-5692-6

Date Collected: 02/20/14 12:37

Matrix: Solid

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Thorium-228	0.399		0.149	0.152	1.00	0.109	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-230	0.493		0.158	0.163	1.00	0.0380	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-232	0.331		0.131	0.134	1.00	0.0769	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	73.9		30 - 110					03/03/14 10:32	03/06/14 16:45	1

TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: CC-C-045-6-8

Lab Sample ID: 160-5692-6

Matrix: Solid

Date Collected: 02/20/14 12:37

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Uranium-233/234	0.359		0.125	0.129	1.00	0.0683	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	0.0238	U	0.0375	0.0375	1.00	0.0598	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.480		0.143	0.149	1.00	0.0547	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	88.1		30 - 110					03/07/14 13:26	03/12/14 18:01	1

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Actinium 228	0.445		0.0201	0.0497	0.100	0.0201	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Bismuth-212	0.494		0.0668	0.0842	0.100	0.0637	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Bismuth-214	0.342		0.0171	0.0394	0.100	0.0136	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Lead-210	0.392		0.119	0.127	0.100	0.147	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Lead-212	0.489		0.0117	0.0644	0.100	0.00978	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Lead-214	0.384		0.0148	0.0426	0.100	0.0140	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Potassium-40	8.59		0.191	0.900	2.50	0.0752	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Protactinium-231	0.0966	U	0.0847	0.0854	1.00	0.138	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Radium-226	0.897		0.107	0.190	1.00	0.128	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Radium-228	0.445		0.0201	0.0497	1.00	0.0201	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Thorium-234	0.631		0.126	0.142	1.00	0.155	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Thallium-208	0.152		0.00885	0.0181	0.100	0.00708	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Uranium-235	0.0380		0.0241	0.0245	1.00	0.0344	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Uranium-238	0.631		0.126	0.142	1.00	0.155	pCi/g	02/28/14 09:56	03/04/14 09:39	1
Protactinium-234m	1.46		0.462	0.485	10.0	0.691	pCi/g	02/28/14 09:56	03/04/14 09:39	1

Client Sample ID: LT-C-048-2-4

Lab Sample ID: 160-5692-7

Matrix: Solid

Date Collected: 02/20/14 13:20

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Thorium-228	0.251		0.115	0.117	1.00	0.0809	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-230	0.376		0.137	0.141	1.00	0.0375	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-232	0.207		0.103	0.104	1.00	0.0647	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	75.1		30 - 110					03/03/14 10:32	03/06/14 16:45	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Uranium-233/234	0.230		0.115	0.116	1.00	0.107	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	-0.00289	U	0.00579	0.00579	1.00	0.0702	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.193		0.0992	0.101	1.00	0.0643	pCi/g	03/07/14 13:26	03/12/14 18:01	1

TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: LT-C-048-2-4

Lab Sample ID: 160-5692-7

Matrix: Solid

Date Collected: 02/20/14 13:20

Date Received: 02/25/14 09:30

Tracer	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Uranium-232	75.0		30 - 110	03/07/14 13:26	03/12/14 18:01	1

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Actinium-228	0.332		0.0216	0.0402	0.100	0.0238	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Bismuth-212	0.432		0.106	0.115	0.100	0.0941	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Bismuth-214	0.324		0.0178	0.0381	0.100	0.0141	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Lead-210	0.296		0.104	0.110	0.100	0.139	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Lead-212	0.343		0.0108	0.0457	0.100	0.00983	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Lead-214	0.366		0.0150	0.0409	0.100	0.0139	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Potassium-40	11.0		0.233	1.14	2.50	0.0706	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Protactinium-231	-0.111	U	0.111	0.111	1.00	0.181	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Radium-226	0.922		0.131	0.207	1.00	0.140	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Radium-228	0.332		0.0216	0.0402	1.00	0.0238	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Thorium-234	0.356		0.107	0.113	1.00	0.144	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Thallium-208	0.118		0.00811	0.0147	0.100	0.00629	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Uranium-235	0.0176	U	0.0194	0.0195	1.00	0.0315	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Uranium-238	0.356		0.107	0.113	1.00	0.144	pCi/g	02/28/14 09:56	03/04/14 09:36	1
Protactinium-234m	0.620	U	0.663	0.666	10.0	1.09	pCi/g	02/28/14 09:56	03/04/14 09:36	1

Client Sample ID: CC-C-046-6-8

Lab Sample ID: 160-5692-8

Matrix: Solid

Date Collected: 02/20/14 14:05

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.537		0.156	0.163	1.00	0.0902	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-230	0.573		0.158	0.165	1.00	0.0491	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-232	0.479		0.144	0.150	1.00	0.0558	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Thorium-229	85.8		30 - 110					03/03/14 10:32	03/06/14 16:45	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.709		0.181	0.191	1.00	0.0804	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	0.0510	U	0.0568	0.0570	1.00	0.0731	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.531		0.155	0.161	1.00	0.0339	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Tracer	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Uranium-232	81.1		30 - 110					03/07/14 13:26	03/12/14 18:01	1

TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: CC-C-046-6-8

Lab Sample ID: 160-5692-8

Date Collected: 02/20/14 14:05

Matrix: Solid

Date Received: 02/25/14 09:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Actinium-228	0.538		0.0352	0.0652	0.100	0.0303	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Bismuth-212	0.596		0.0734	0.0960	0.100	0.0899	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Bismuth-214	0.485		0.0232	0.0555	0.100	0.0171	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Lead-210	0.506		0.124	0.138	0.100	0.159	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Lead-212	0.581		0.0155	0.0768	0.100	0.0141	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Lead-214	0.539		0.0204	0.0596	0.100	0.0177	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Potassium-40	8.05		0.241	0.858	2.50	0.0981	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Protactinium-231	0.257	U	0.0661	0.0718	1.00	0.260	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Radium-226	1.15		0.177	0.267	1.00	0.191	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Radium-228	0.538		0.0352	0.0652	1.00	0.0303	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Thorium-234	0.610		0.161	0.174	1.00	0.196	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Thallium-208	0.188		0.0115	0.0227	0.100	0.00921	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Uranium-235	0.0404	U	0.0238	0.0241	1.00	0.0430	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Uranium-238	0.610		0.161	0.174	1.00	0.196	pCi/g	02/28/14 09:56	03/04/14 09:38	1
Protactinium-234m	1.60		0.989	1.00	10.0	1.02	pCi/g	02/28/14 09:56	03/04/14 09:38	1

Client Sample ID: LT-C-049-2-4

Lab Sample ID: 160-5692-9

Matrix: Solid

Date Collected: 02/20/14 14:55

Date Received: 02/25/14 09:30

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Thorium-228	0.467		0.150	0.155	1.00	0.0899	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-230	0.481		0.148	0.153	1.00	0.0341	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Thorium-232	0.383		0.132	0.136	1.00	0.0515	pCi/g	03/03/14 10:32	03/06/14 16:45	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Thorium-229	84.3		30 - 110				03/03/14 10:32		03/06/14 16:45	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Uranium-233/234	0.394		0.129	0.133	1.00	0.0475	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	-0.00487	U	0.00688	0.00690	1.00	0.0674	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.407		0.132	0.136	1.00	0.0674	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Tracer	%Yield	Qualifier	Limits				Prepared		Analyzed	Dil Fac
Uranium-232	87.7		30 - 110				03/07/14 13:26		03/12/14 18:01	1

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			(2σ+/-)	(2σ+/-)						
Actinium-228	0.548		0.0245	0.0611	0.100	0.0216	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Bismuth-212	0.617		0.101	0.119	0.100	0.0878	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Bismuth-214	0.440		0.0159	0.0484	0.100	0.0131	pCi/g	02/28/14 09:56	03/05/14 02:59	1

TestAmerica St. Louis

Client Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Client Sample ID: LT-C-049-2-4

Lab Sample ID: 160-5692-9

Matrix: Solid

Date Collected: 02/20/14 14:55

Date Received: 02/25/14 09:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	(2σ+/-)						
Lead-210	0.500		0.124	0.137	0.100	0.156	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Lead-212	0.596		0.0134	0.0782	0.100	0.0104	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Lead-214	0.511		0.0177	0.0560	0.100	0.0139	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Potassium-40	7.41		0.185	0.781	2.50	0.0749	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Protactinium-231	0.0651	U	0.0928	0.0931	1.00	0.153	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Radium-226	1.06		0.115	0.218	1.00	0.137	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Radium-228	0.548		0.0245	0.0611	1.00	0.0216	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Thorium-234	0.587		0.131	0.145	1.00	0.166	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Thallium-208	0.179		0.00895	0.0207	0.100	0.00699	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Uranium-235	0.0650		0.0278	0.0286	1.00	0.0358	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Uranium-238	0.587		0.131	0.145	1.00	0.166	pCi/g	02/28/14 09:56	03/05/14 02:59	1
Protactinium-234m	1.23		0.544	0.558	10.0	0.620	pCi/g	02/28/14 09:56	03/05/14 02:59	1

TestAmerica St. Louis

QC Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-107868/1-A

Matrix: Water

Analysis Batch: 108004

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 107868

Analyte	MB MB		Uncert.	Count (2σ+/-)	Total (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Radium-226	0.1267	U		0.119	0.119	1.00	0.180	pCi/L	02/27/14 12:46	02/28/14 14:24	1
<i>Carrier</i>	<i>MB MB</i>								<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	%Yield	Qualifier		Limits					02/27/14 12:46	02/28/14 14:24	1
	83.2			40 - 110							

Lab Sample ID: LCS 160-107868/2-A

Matrix: Water

Analysis Batch: 108004

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 107868

Analyte	Spike		LCS	LCS	Total		Uncert.	(2σ+/-)	RL	MDC	Unit	%Rec.	Limits
	Added	Result		Qual	Uncert.	Result	Qual						
Radium-226		11.2		10.52		1.21		1.21	1.00	0.177	pCi/L	94	68 - 137
<i>Carrier</i>	<i>LCS LCS</i>												
Ba Carrier	%Yield	Qualifier		Limits									
	90.0			40 - 110									

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-107867/1-A

Matrix: Water

Analysis Batch: 108084

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 107867

Analyte	MB MB		Uncert.	Count (2σ+/-)	Total (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Radium-228	0.02661	U		0.161	0.161	1.00	0.286	pCi/L	02/27/14 12:41	03/03/14 11:54	1
<i>Carrier</i>	<i>MB MB</i>								<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ba Carrier	%Yield	Qualifier		Limits					02/27/14 12:41	03/03/14 11:54	1
Y Carrier	104			40 - 110					02/27/14 12:41	03/03/14 11:54	1
	86.3			40 - 110							

Lab Sample ID: LCS 160-107867/2-A

Matrix: Water

Analysis Batch: 108084

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 107867

Analyte	Spike		LCS	LCS	Total		Uncert.	(2σ+/-)	RL	MDC	Unit	%Rec.	Limits
	Added	Result		Qual	Uncert.	Result	Qual						
Radium-228		3.95		3.226		0.466		0.466	1.00	0.265	pCi/L	82	56 - 140
<i>Carrier</i>	<i>LCS LCS</i>												
Ba Carrier	%Yield	Qualifier		Limits									
	110			40 - 110									
Y Carrier	86.3			40 - 110									

TestAmerica St. Louis

QC Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Lab Sample ID: MB 160-108019/1-A

Matrix: Water

Analysis Batch: 108595

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108019

Analyte	MB MB		Uncert.	Count Total		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier		(2σ+/-)	(2σ+/-)						
Thorium-228	-0.04209	U	0.235	0.235	1.00	0.574	pCi/L		03/03/14 10:13	03/05/14 15:28	1
Thorium-230	0.006558	U	0.117	0.117	1.00	0.341	pCi/L		03/03/14 10:13	03/05/14 15:28	1
Thorium-232	0.1606	U	0.214	0.215	1.00	0.339	pCi/L		03/03/14 10:13	03/05/14 15:28	1
Tracer	MB MB		%Yield Qualifier		Limits				Prepared	Analyzed	Dil Fac
Thorium-229	35.8				30 - 110				03/03/14 10:13	03/05/14 15:28	1

Lab Sample ID: LCS 160-108019/2-A

Matrix: Water

Analysis Batch: 108596

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108019

Analyte	Spike		LCS Result	LCS Qual	Total		RL	MDC	Unit	%Rec.	Limits
	Added	Result			Uncert.	(2σ+/-)					
Thorium-230	8.64	9.725			1.25		1.00	0.154	pCi/L	113	81 - 125
Tracer	LCS LCS		%Yield Qualifier		Limits						
Thorium-229	81.9				30 - 110						

Lab Sample ID: LCSD 160-108019/3-A

Matrix: Water

Analysis Batch: 108599

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108019

Analyte	Spike		LCSD Result	LCSD Qual	Total		RL	MDC	Unit	%Rec.	Limits
	Added	Result			Uncert.	(2σ+/-)					
Thorium-230	8.64	9.623			1.25		1.00	0.124	pCi/L	111	81 - 125
Tracer	LCSD LCSD		%Yield Qualifier		Limits						
Thorium-229	78.8				30 - 110						

Lab Sample ID: MB 160-108024/1-A

Matrix: Solid

Analysis Batch: 109030

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108024

Analyte	MB MB		Uncert.	Count Total		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier		(2σ+/-)	(2σ+/-)						
Thorium-228	0.03541	U	0.0508	0.0508	1.00	0.0860	pCi/g		03/03/14 10:32	03/06/14 16:45	1
Thorium-230	0.009356	U	0.0215	0.0215	1.00	0.0455	pCi/g		03/03/14 10:32	03/06/14 16:45	1
Thorium-232	0.00000	U	0.00373	0.00373	1.00	0.0298	pCi/g		03/03/14 10:32	03/06/14 16:45	1
Tracer	MB MB		%Yield Qualifier		Limits				Prepared	Analyzed	Dil Fac
Thorium-229	91.8				30 - 110				03/03/14 10:32	03/06/14 16:45	1

TestAmerica St. Louis

QC Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCS 160-108024/2-A

Matrix: Solid

Analysis Batch: 109031

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108024

Analyte	Spike Added	LCS		Uncert. (2σ+/-)	Total		%Rec.	Limits
		Result	Qual		RL	MDC		
Thorium-230	24.5	24.54		2.53	1.00	0.114	pCi/g	100 81 - 118
Tracer								
Thorium-229	82.8			30 - 110				

Lab Sample ID: 160-5692-1 DU

Matrix: Solid

Analysis Batch: 109033

Client Sample ID: LT-XC-020-6-8

Prep Type: Total/NA

Prep Batch: 108024

Analyte	Sample		DU		Total		RER	Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)	RL	MDC	Unit
Thorium-228	0.414		0.3629		0.136	1.00	0.0893	pCi/g
Thorium-230	0.447		0.3938		0.138	1.00	0.0515	pCi/g
Thorium-232	0.349		0.2924		0.117	1.00	0.0337	pCi/g
Tracer								
Thorium-229	79.8		30 - 110					

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-108021/1-A

Matrix: Water

Analysis Batch: 108605

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108021

Analyte	MB		Count		Total		Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Unit		
Uranium-233/234	0.07756	U	0.102	0.102	1.00	0.164	pCi/L	03/03/14 10:13	03/05/14 15:25
Uranium-235/236	-0.005170	U	0.0103	0.0103	1.00	0.126	pCi/L	03/03/14 10:13	03/05/14 15:25
Uranium-238	0.009675	U	0.0465	0.0465	1.00	0.126	pCi/L	03/03/14 10:13	03/05/14 15:25
Tracer									
Uranium-232	83.1		30 - 110					03/03/14 10:13	03/05/14 15:25

Lab Sample ID: LCS 160-108021/2-A

Matrix: Water

Analysis Batch: 108607

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108021

Analyte	Spike		LCS		Total		%Rec.	Limits
	Added	Result	Qual	Uncert. (2σ+/-)	RL	MDC	Unit	
Uranium-233/234	12.7	12.79		1.50	1.00	0.138	pCi/L	100 84 - 120
Uranium-238	13.0	13.69		1.58	1.00	0.111	pCi/L	105 83 - 121
Tracer								
Uranium-232	86.9		30 - 110					

TestAmerica St. Louis

QC Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry) (Continued)

Lab Sample ID: LCSD 160-108021/3-A

Matrix: Water

Analysis Batch: 108608

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108021

Analyte	Spike Added	LCSD		Total		RL	MDC	Unit	%Rec.	Limits	RER	RER Limit
		Result	Qual	Uncert. (2σ+/-)								
Uranium-233/234	12.7	11.43		1.36		1.00	0.175	pCi/L	90	84 - 120	0.47	1
Uranium-238	13.0	11.72		1.39		1.00	0.106	pCi/L	90	83 - 121	0.67	1
Tracer	LCSD	LCSD										
<i>Uranium-232</i>	<i>%Yield</i>	<i>Qualifier</i>										
	92.1			30 - 110								

Lab Sample ID: MB 160-109197/1-A

Matrix: Solid

Analysis Batch: 110045

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 109197

Analyte	MB		Count		Total		Prepared	Analyzed	Dil Fac	
	Result	MB	Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Unit			
Uranium-233/234	0.02636	U	0.0352	0.0353	1.00	0.0522	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-235/236	-0.002343	U	0.00469	0.00469	1.00	0.0569	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Uranium-238	0.01816	U	0.0286	0.0286	1.00	0.0456	pCi/g	03/07/14 13:26	03/12/14 18:01	1
Tracer	MB	MB						Prepared	Analyzed	Dil Fac
<i>Uranium-232</i>	<i>%Yield</i>	<i>Qualifier</i>						<i>03/07/14 13:26</i>	<i>03/12/14 18:01</i>	<i>1</i>
	93.7			30 - 110						

Lab Sample ID: LCS 160-109197/2-A

Matrix: Solid

Analysis Batch: 110046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 109197

Analyte	Spike		LCS		Total		Prepared	Analyzed	Dil Fac		
	Added	Result	Result	Qual	Uncert. (2σ+/-)	RL	MDC	Unit			
Uranium-233/234	6.37	6.397			0.745	1.00	0.0474	pCi/g	100	84 - 120	
Uranium-238	6.51	6.500			0.754	1.00	0.0312	pCi/g	100	82 - 122	
Tracer	LCS	LCS									
<i>Uranium-232</i>	<i>%Yield</i>	<i>Qualifier</i>									
	90.3			30 - 110							

Lab Sample ID: 160-5692-1 DU

Matrix: Solid

Analysis Batch: 110048

Client Sample ID: LT-XC-020-6-8

Prep Type: Total/NA

Prep Batch: 109197

Analyte	Sample		DU		Total		Prepared	Analyzed	Dil Fac	
	Result	Qual	Result	Qual	Uncert. (2σ+/-)	RL	MDC	Unit		
Uranium-233/234	0.692		0.5295		0.186	1.00	0.0917	pCi/g	0.38	1
Uranium-235/236	0.0852	U	-0.01051	U	0.0122	1.00	0.106	pCi/g	0.89	1
Uranium-238	0.416		0.4685		0.174	1.00	0.0915	pCi/g	0.15	1
Tracer	DU	DU								
<i>Uranium-232</i>	<i>%Yield</i>	<i>Qualifier</i>								
	58.5			30 - 110						

TestAmerica St. Louis

QC Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-107877/1-A

Matrix: Water

Analysis Batch: 107940

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 107877

Analyte	Result	MB	MB	Count		Total		MDC	Unit	Prepared	Analyzed	Dil Fac
				Uncert.	(2σ+/-)	Uncert.	(2σ+/-)					
Actinium-228	9.046	U		6.90		6.96	50.0	11.2	pCi/L	02/27/14 14:19	02/28/14 03:23	1
Cesium-137	1.815	U		2.12		2.12	20.0	3.47	pCi/L	02/27/14 14:19	02/28/14 03:23	1
Bismuth-212	0.0000	U		12.0		12.0	50.0	43.0	pCi/L	02/27/14 14:19	02/28/14 03:23	1
Bismuth-214	2.846	U		7.67		7.67	50.0	10.3	pCi/L	02/27/14 14:19	02/28/14 03:23	1
Lead-212	-1.979	U		4.74		4.75	50.0	7.23	pCi/L	02/27/14 14:19	02/28/14 03:23	1
Lead-214	-1.771	U		7.48		7.48	50.0	9.05	pCi/L	02/27/14 14:19	02/28/14 03:23	1
Potassium-40	-51.20	U		85.8		86.0	75.0	61.2	pCi/L	02/27/14 14:19	02/28/14 03:23	1
Protactinium-234m	45.00	U G		266		266	75.0	486	pCi/L	02/27/14 14:19	02/28/14 03:23	1
Protactinium-231	8.099	U G		32.7		32.7	75.0	110	pCi/L	02/27/14 14:19	02/28/14 03:23	1

Lab Sample ID: LCS 160-107877/2-A

Matrix: Water

Analysis Batch: 108323

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 107877

Analyte	Spike	Added	LCS	LCS	Total		MDC	Unit	%Rec	Limits	%Rec
					Result	Qual	Uncert.	(2σ+/-)	RL		
Americium-241		137000		133600			15400		238	pCi/L	97
Cesium-137		50300		49510			4950	20.0	92.1	pCi/L	98
Cobalt-60		58700		57680			5700		56.5	pCi/L	98

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-107955/1-A

Matrix: Solid

Analysis Batch: 108306

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 107955

Analyte	Result	MB	MB	Count		Total		MDC	Unit	Prepared	Analyzed	Dil Fac
				Uncert.	(2σ+/-)	Uncert.	(2σ+/-)					
Actinium 228	0.009706	U		0.00809		0.00815	0.100	0.0166	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Bismuth-212	0.01583	U		0.0299		0.0299	0.100	0.0505	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Bismuth-214	0.003687	U		0.00341		0.00343	0.100	0.0113	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Lead-210	0.03886	U		0.0558		0.0560	0.100	0.0865	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Lead-212	0.002962	U		0.00523		0.00524	0.100	0.00703	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Lead-214	0.005871	U		0.00491		0.00495	0.100	0.00780	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Potassium-40	0.0000	U		0.0416		0.0433	2.50	0.0805	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Protactinium-231	0.01801	U		0.0590		0.0590	1.00	0.100	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Radium-226	-0.005560	U		0.0530		0.0530	1.00	0.0812	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Radium-228	0.009706	U		0.00809		0.00815	1.00	0.0166	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Thorium-234	0.03113	U		0.0495		0.0496	1.00	0.0779	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Thallium-208	0.003029	U		0.00296		0.00298	0.100	0.00480	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Uranium-235	0.01139	U		0.0113		0.0113	1.00	0.0177	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Uranium-238	0.03113	U		0.0495		0.0496	1.00	0.0779	pCi/g	02/28/14 09:56	03/04/14 03:09	1
Protactinium-234m	-0.1300	U		0.360		0.360	10.0	0.764	pCi/g	02/28/14 09:56	03/04/14 03:09	1

TestAmerica St. Louis

QC Sample Results

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: LCS 160-107955/2-A

Matrix: Solid

Analysis Batch: 108306

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 107955

Analyte	Spike Added	LCS		Uncert. (2σ+/-)	Total			%Rec.	Limits
		Result	Qual		RL	MDC	Unit		
Americium-241	101	102.2		10.6		0.186	pCi/g	101	87 - 116
Cesium-137	35.7	35.59		3.71	0.100	0.0700	pCi/g	100	87 - 120
Cobalt-60	41.7	41.32		4.15		0.0413	pCi/g	99	87 - 115

Lab Sample ID: 160-5692-1 DU

Matrix: Solid

Analysis Batch: 108315

Client Sample ID: LT-XC-020-6-8

Prep Type: Total/NA

Prep Batch: 107955

Analyte	Sample		DU		Uncert. (2σ+/-)	Total			RER	Limit
	Result	Qual	Result	Qual		RL	MDC	Unit		
Actinium 228	0.557		0.5494		0.0604	0.100	0.0229	pCi/g	0.06	1
Bismuth-212	0.648		0.5963		0.107	0.100	0.0776	pCi/g	0.23	1
Bismuth-214	0.379		0.3664		0.0416	0.100	0.0131	pCi/g	0.16	1
Lead-210	0.434		0.4502		0.128	0.100	0.147	pCi/g	0.06	1
Lead-212	0.595		0.5488		0.0721	0.100	0.0127	pCi/g	0.31	1
Lead-214	0.412		0.4179		0.0459	0.100	0.0123	pCi/g	0.06	1
Potassium-40	11.5		11.91		1.24	2.50	0.0748	pCi/g	0.17	1
Protactinium-231	-0.260	U	0.06257	U F	0.0842	1.00	0.138	pCi/g	1.53	1
Radium-226	0.895		0.8809		0.195	1.00	0.138	pCi/g	0.03	1
Radium-228	0.557		0.5494		0.0604	1.00	0.0229	pCi/g	0.06	1
Thorium-234	0.391		0.4162		0.131	1.00	0.157	pCi/g	0.13	1
Thallium-208	0.174		0.1777		0.0200	0.100	0.00598	pCi/g	0.09	1
Uranium-235	0.0486		0.03794		0.0187	1.00	0.0322	pCi/g	0.23	1
Uranium-238	0.391		0.4162		0.131	1.00	0.157	pCi/g	0.13	1
Protactinium-234	1.69		1.423		0.754	10.0	0.749	pCi/g	0.18	1
m										

TestAmerica St. Louis

QC Association Summary

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Rad

Leach Batch: 107548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-1	LT-XC-020-6-8	Total/NA	Solid	Dry and Grind	
160-5692-1 DU	LT-XC-020-6-8	Total/NA	Solid	Dry and Grind	
160-5692-2	CC-C-042-6-8	Total/NA	Solid	Dry and Grind	
160-5692-3	CC-C-043-10-12	Total/NA	Solid	Dry and Grind	
160-5692-4	CC-C-044-6-8	Total/NA	Solid	Dry and Grind	
160-5692-6	CC-C-045-6-8	Total/NA	Solid	Dry and Grind	
160-5692-7	LT-C-048-2-4	Total/NA	Solid	Dry and Grind	
160-5692-8	CC-C-046-6-8	Total/NA	Solid	Dry and Grind	
160-5692-9	LT-C-049-2-4	Total/NA	Solid	Dry and Grind	

Prep Batch: 107867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-5	FB027	Total/NA	Water	PrecSep_0	
LCS 160-107867/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-107867/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 107868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-5	FB027	Total/NA	Water	PrecSep_0	
LCS 160-107868/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-107868/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 107877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-5	FB027	Total/NA	Water	Fill_Geo-0	
LCS 160-107877/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-0	
MB 160-107877/1-A	Method Blank	Total/NA	Water	Fill_Geo-0	

Prep Batch: 107955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-1	LT-XC-020-6-8	Total/NA	Solid	Fill_Geo-0	107548
160-5692-1 DU	LT-XC-020-6-8	Total/NA	Solid	Fill_Geo-0	107548
160-5692-2	CC-C-042-6-8	Total/NA	Solid	Fill_Geo-0	107548
160-5692-3	CC-C-043-10-12	Total/NA	Solid	Fill_Geo-0	107548
160-5692-4	CC-C-044-6-8	Total/NA	Solid	Fill_Geo-0	107548
160-5692-6	CC-C-045-6-8	Total/NA	Solid	Fill_Geo-0	107548
160-5692-7	LT-C-048-2-4	Total/NA	Solid	Fill_Geo-0	107548
160-5692-8	CC-C-046-6-8	Total/NA	Solid	Fill_Geo-0	107548
160-5692-9	LT-C-049-2-4	Total/NA	Solid	Fill_Geo-0	107548
LCS 160-107955/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-0	
MB 160-107955/1-A	Method Blank	Total/NA	Solid	Fill_Geo-0	

Prep Batch: 108019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-5	FB027	Total/NA	Water	ExtChrom	
LCS 160-108019/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	
LCSD 160-108019/3-A	Lab Control Sample Dup	Total/NA	Water	ExtChrom	
MB 160-108019/1-A	Method Blank	Total/NA	Water	ExtChrom	

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QC Association Summary

Client: Posillico Dev Company at Harbor Isle LLC
 Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Rad (Continued)

Prep Batch: 108021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-5	FB027	Total/NA	Water	ExtChrom	
LCS 160-108021/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	
LCSD 160-108021/3-A	Lab Control Sample Dup	Total/NA	Water	ExtChrom	
MB 160-108021/1-A	Method Blank	Total/NA	Water	ExtChrom	

Prep Batch: 108024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-1	LT-XC-020-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-1 DU	LT-XC-020-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-2	CC-C-042-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-3	CC-C-043-10-12	Total/NA	Solid	ExtChrom	107548
160-5692-4	CC-C-044-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-6	CC-C-045-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-7	LT-C-048-2-4	Total/NA	Solid	ExtChrom	107548
160-5692-8	CC-C-046-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-9	LT-C-049-2-4	Total/NA	Solid	ExtChrom	107548
LCS 160-108024/2-A	Lab Control Sample	Total/NA	Solid	ExtChrom	
MB 160-108024/1-A	Method Blank	Total/NA	Solid	ExtChrom	

Prep Batch: 109197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5692-1	LT-XC-020-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-1 DU	LT-XC-020-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-2	CC-C-042-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-3	CC-C-043-10-12	Total/NA	Solid	ExtChrom	107548
160-5692-4	CC-C-044-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-6	CC-C-045-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-7	LT-C-048-2-4	Total/NA	Solid	ExtChrom	107548
160-5692-8	CC-C-046-6-8	Total/NA	Solid	ExtChrom	107548
160-5692-9	LT-C-049-2-4	Total/NA	Solid	ExtChrom	107548
LCS 160-109197/2-A	Lab Control Sample	Total/NA	Solid	ExtChrom	
MB 160-109197/1-A	Method Blank	Total/NA	Solid	ExtChrom	

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Tracer/Carrier Summary

Client: Posillico Dev Company at Harbor Isle LLC
Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (40-110)
160-5692-5	FB027	88.5
LCS 160-107868/2-A	Lab Control Sample	90.0
MB 160-107868/1-A	Method Blank	83.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
160-5692-5	FB027	92.9	88.0
LCS 160-107867/2-A	Lab Control Sample	110	86.3
MB 160-107867/1-A	Method Blank	104	86.3

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Matrix: Solid

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Th-229 (30-110)
160-5692-1	LT-XC-020-6-8	79.8
160-5692-1 DU	LT-XC-020-6-8	79.8
160-5692-2	CC-C-042-6-8	85.2
160-5692-3	CC-C-043-10-12	84.0
160-5692-4	CC-C-044-6-8	75.9
160-5692-6	CC-C-045-6-8	73.9
160-5692-7	LT-C-048-2-4	75.1
160-5692-8	CC-C-046-6-8	85.8
160-5692-9	LT-C-049-2-4	84.3
LCS 160-108024/2-A	Lab Control Sample	82.8
MB 160-108024/1-A	Method Blank	91.8

Tracer/Carrier Legend

Th-229 = Thorium-229

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Th-229 (30-110)
160-5692-5	FB027	68.1
LCS 160-108019/2-A	Lab Control Sample	81.9

TestAmerica St. Louis

Tracer/Carrier Summary

Client: Posillico Dev Company at Harbor Isle LLC
Project/Site: Glen Isle, Radiological Analyses

TestAmerica Job ID: 160-5692-1

Method: A-01-R - Isotopic Thorium (Alpha Spectrometry) (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Th-229 (30-110)	
LCSD 160-108019/3-A	Lab Control Sample Dup	78.8	
MB 160-108019/1-A	Method Blank	35.8	
Tracer/Carrier Legend			
Th-229 = Thorium-229			

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		U-232 (30-110)	
160-5692-1	LT-XC-020-6-8	48.4	
160-5692-1 DU	LT-XC-020-6-8	58.5	
160-5692-2	CC-C-042-6-8	90.5	
160-5692-3	CC-C-043-10-12	81.6	
160-5692-4	CC-C-044-6-8	77.8	
160-5692-6	CC-C-045-6-8	88.1	
160-5692-7	LT-C-048-2-4	75.0	
160-5692-8	CC-C-046-6-8	81.1	
160-5692-9	LT-C-049-2-4	87.7	
LCS 160-109197/2-A	Lab Control Sample	90.3	
MB 160-109197/1-A	Method Blank	93.7	
Tracer/Carrier Legend			
U-232 = Uranium-232			

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		U-232 (30-110)	
160-5692-5	FB027	92.3	
LCS 160-108021/2-A	Lab Control Sample	86.9	
LCSD 160-108021/3-A	Lab Control Sample Dup	92.1	
MB 160-108021/1-A	Method Blank	83.1	
Tracer/Carrier Legend			
U-232 = Uranium-232			

TestAmerica St. Louis